Volume 11, Number 1, 1990

ORIGINAL ARTICLES

A. Rodin, B. Murby, M. A. Smith, M. Caleffi, I. Fentiman, M. G. Chapman and I. Fogelman

Premenopausal Bone Loss in the Lumbar Spine and Neck of Femur: A Study of 225 Caucasian Women 1

E. C. H. van Beresteijn, M. A. van't Hof, H. de Waard, J. A. Raymakers and S. A. Duursma

Relation of Axial Bone Mass to Habitual Calcium Intake and to Cortical Bone Loss in Healthy Early Postmenopausal Women 7

R. J. Hené, W. J. Visser, S. A. Duursma, J. A. Raymakers, R. J. de bos Kuil and E. J. Dorhout Mees

No Effect of APD (Amino Hydroxypropylidene Bisphosphonate) on Hypercalcemia in Patients with Renal Osteodystrophy 15

J. M. Britton and M. W. J. Davie

Mechanical Properties of Bone from Iliac Crest and Relationship to L5 Vertebral Bone 21

M. C. de Vernejoul, A. Pointillart, A. Bourdeau, C. Morieux, D. Modrowski, L. Miravet and F. Caulin

Effect of Calcitonin Administration on Young Pig Trabecular Bone Remodeling 29

A. Boyde and C. M. Riggs

The Quantitative Study of the Orientation of Collagen in Compact Bone Slices 35

W. G. Lieuallen, S. E. Weisbrode, R. L. Horst and L. A. Nagode

The Effects of Uremia and Dietary Phosphorus on the Bone of Rats 41

M. M. Hurley, D. L. Martin, B. E. Kream and L. G. Raisz

Effects of Ethanol and Acetaldehyde on Collagen Synthesis, Prostaglandin Release and Resorption of Fetal Rat Bone in Organ Culture 47

B. A. A. Scheven and N. J. Hamilton

Retinoic Acid and 1,25-Dihydroxyvitamin D_3 Stimulate Osteoclast Formation by Different Mechanisms 53

S. J. Vargas and L. G. Raisz

Simultaneous Assessment of Bone Resorption and Formation in Cultures of 22-day Fetal Rat Parietal Bones: Effects of Parathyroid Hormone and Prostaglandin E_2 61

Volume 11, Number 2, 1990

ORIGINAL ARTICLES

Lis Mosekilde and Leif Mosekilde

Sex Differences in Age-related Changes in Vertebral Body Size, Density and Biomechanical Competence in Normal Individuals 67

P. Christiansen, T. Steiniche, Le. Mosekilde, I. Hessov and F. Melsen

Primary Hyperparathyroidism: Changes in Trabecular Bone Remodeling Following Surgical Treatment—Evaluated by Histomorphometric Methods 75

C. Chenu, A. Valentin-Opran, P. Chavassieux, S. Saez, P. J. Meunier and P. D. Delmas

Insulin Like Growth Factor I Hormonal Regulation by Growth Hormone and by $1,25(OH)_2D_3$ and Activity on Human Osteoblast-like Cells in Short-term Cultures 81

S. Mori, W. S. S. Jee, X. J. Li, S. Chan, and D. B. Kimmel

Effects of Prostaglandin E_2 on Production of New Cancellous Bone in the Axial Skeleton of Ovariectomized Rats 103

L. L. Key, Jr., W. L. Ries, R. G. Taylor, B. D. Hays and B. L. Pitzer

Oxygen Derived Free Radicals in Osteoclasts: The Specificity and Location of the Nitroblue Tetrazolium Reaction 115

M. T. Gordon, J. St. John, I. P. Braidman and D. C. Anderson

Bone Conditioned Medium Enhances Cell Aggregation, Cell Proliferation and Alkaline Phosphatase Activity in Serum-Deprived Medium 121

E. E. Delvin, P. Richard, M. Desbarats, B. Ecarot-Charrier and F. H. Glorieux

Cultured Osteoblasts from Normal and Hypophosphatemic Mice: Calcitriol Receptors and Biological Response to the Hormone 87

X. Q. Li and L. Klein

Decreasing Rates of Bone Resorption in Growing Rats In Vivo: Comparison of Different Types of Bones..... 95

M. Wong and D. R. Carter

Theoretical Stress Analysis of Organ Culture Osteogenesis 127

S. P. Bruder and A. I. Caplan

A Monoclonal Antibody Against the Surface of Osteoblasts Recognizes Alkaline Phosphatase Isoenzymes in Bone, Liver, Kidney, and Intestine 133

ANNOUNCEMENTS 141

Volume 11, Number 3, 1990

ORIGINAL ARTICLES

K. M. Davies, P. H. Pearson, C. A. Huseman, N. G. Greger, D. K. Kimmel and R. R. Recker

Reduced Bone Mineral in Patients with Eating Disorders 143

A. Vesterby

Star Volume of Marrow Space and Trabeculae in Iliac Crest: Sampling Procedure and Correlation to Star Volume of First Lumbar Vertebra 149

R. A. Dodds, R. J. H. Emery, L. Klenerman, J. Chayen and L. Bitensky

Selective Depression of Metabolic Activities in Cortical Osteoblasts at the Site of Femoral Neck Fractures..... 157

K. Tada, T. Yamamuro, H. Okumura, R. Kasai and H. Takahashi

Restoration of Axial and Appendicular Bone Volumes by h-PTH(1–34) in Parathyroidectomized and Osteopenic Rats 163

P. J. Marie, D. Connes, M. Hott and L. Miravet

Comparative Effects of a Novel Vitamin D Analogue MC-903 and 1,25-Dihydroxyvitamin D_3 on Alkaline Phosphatase Activity, Osteocalcin and DNA Synthesis by Human Osteoblastic Cells in Culture 171

H. Nakahara, S. P. Bruder, S. E. Haynesworth, J. J. Holecek, M. A. Baber, V. M. Goldberg and A. I. Caplan

Bone and Cartilage Formation in Diffusion Chambers by Subcultured Cells Derived from the Periosteum 181

S. P. Bruder and A. I. Caplan

Terminal Differentiation of Osteogenic Cells in the Embryonic Chick Tibia is Revealed by a Monoclonal Antibody Against Osteocytes..... 189

G. Proto, F. Bertolissi, C. Moretti and M. Corsi

Case Report: Mixed-Sclerosing-Bone-Dystrophy (Osteopathia Striata and Osteopetrosis) and Cushing's Syndrome 199

G. R. Dickson, A. Hamilton, D. Hayes, K. E. Carr, R. Davis and R. A. B. Mollan

An Investigation of Vanishing Bone Disease..... 205

R. W. Porter, K. Johnson and J. D. S. McCutchan

Wrist Fracture, Heel Bone Density and Thoracic Kyphosis: A Case Control Study 211

ABSTRACTS

Abstracts from the Bone and Tooth Society Winter Meeting, December 1, 1989, London, England.... 215

Volume 11, Number 4, 1990

ORIGINAL ARTICLES

P. Gärdsell, O. Johnell and B. E. Nilsson

The Predictive Value of Forearm Bone Mineral Content Measurements in Men 229

B. Bak, P. H. Jørgensen and T. T. Andreassen

Increased Mechanical Strength of Healing Rat Tibial Fractures Treated with Biosynthetic Human Growth Hormone 223

N. J. Garrahan, P. I. Croucher and J. E. Compston

A Computerised Technique for the Quantitative Assessment of Resorption Cavities in Trabecular Bone..... 241

V. T. Harju, R. Alitalo and L. C. Andersson

Divergent in vitro Effects of Recombinant Interferons on Human Osteosarcoma Cells 247

W. S. S. Jee, Mori, X. J. Li and S. Chan

Prostaglandin E_2 Enhances Cortical Bone Mass and Actrivates Intracortical Bone Remodeling in Intact and Ovariectomized Female Rate..... 253

W. G. Lieuallen, S. E. Weisbrode and R. L. Horst

The Effects of the Major Vitamin D Metabolites Upon the Resolution of Osteomalacia in Uremic Adult Rats . 267

S. Mundlos, H. Engel, I. Michel-Behnke and B. Zabel

Distribution of Type I and Type II Collagen Gene Expression during the Development of Human Long Bones..... 275

D. C. Morris, H. C. Anderson, H. Yoshikawa, H. Nakahara, K. Takaoka and K. Ono

Matrix Vesicle Calcification of Ectopically Induced Osteoid Tissue in 1–Hydroxethylidene–1,1–Bisphosphonate (HEBP)-Treated Mice 281

J. Kanehisa, T. Yamanaka, S. Doi, K. Turksen, J. N. M. Heersche, J. E. Abin and H. Takeuchi

A Band of F-Actin Containing Podosomes is Involved in Bone Resportion by Osteoclasts 287

E. J. Mackie and U. Trechsel

Stimulation of Bone Formation in vivo by Transforming Growth Factor-β: Remodeling of Woven Bone and Lack of Inhibition by Indomethacin 295

Volume 11, Number 5, 1990

ORIGINAL ARTICLES

W. A. Soskolne, Z. Schwartz, M. Goldstein and A. Ornoy

The Biphasic Effect of Triiodothyronine Compared to Bone Resorbing Effect of PTH on Bone Modelling of Mouse Long Bone in vitro 301

A. T. Vernillo, B. R. Rifkin and P. V. Hauschka

Phenytoin Affects Osteocalcin Secretion from Osteoblastic Rat Osteosarcoma 17/2.8 Cells in Culture..... 309

D. C. Morris, J. C. Randall, D. J. Stechschulte, Jr., D. B. Mansur and H. C. Anderson

Enzyme Cytochemical Localization of Alkaline Phosphatase in Cultures of Chondrocytes Derived from Normal and Rachitic Rats 345

X. J. Li, W. S. S. Jee, Y. L. Li and P. Patterson-Buckendahl

Transient Effects of Subcutaneously Administered Prostaglandin E_2 on Cancellous and Cortical Bone in Young Adult Dogs 353

M. D. Grynpas and P. J. Marie

Effects of Low Doses of Strontium on Bone Quality and Quantity in Rats 313

M. B. Schaffler, E. L. Radin and D. B. Burr

Long-Term Fatigue Behavior of Compact Bone at Low Strain Magnitude and Rate 321

P. D. Ross, R. D. Wasnich and J. W. Davis

Fracture Prediction Models for Osteoporosis Prevention 327

R. J. Murrills and D. W. Dempster

The Effects of Stimulators of Intracellular Cyclic AMP on Rat and Chick Osteoclasts in Vitro: Validation of a Simplified Light Microscope Assay of Bone Resorption 333

K. K. Pun, F. H. W. Wong, C. Wang, P. Lau, P. W. M. Ho, W. K. Pun, S. P. Chow, C. L. Cheng, J. C. Y. Leong and R. T. T. Young

Vitamin D Status among Patients with Fractured Neck of Femur in Hong Kong 365

J. L Saffar and M. Klapisz-Wolikow

Changes in Mast Cell Number during the Activation Phase of an Induced Synchronized Remodeling Sequence in the Rat 369

ABSTRACT

Abstracts from the Bone and Tooth Society Spring Meeting, March 19, 1990 373

Volume 11, Number 6, 1990

ORIGINAL ARTICLES

H. I. Khouja, A. Bevington, G. J. Kemp and R. G. G. Russell

Calcium and Orthophosphate Deposits in vitro do not Imply Osteoblast-Mediated Mineralization: Mineralization by Betaglycerophosphate in the Absence of Osteoblasts 385

A. Frølich, L. Christensen and J. Andersen

Estrogen Receptors Appear Undetectable in the C-Cells of the Human Thyroid Gland 393

K. K. Pun, P. Lau, F. H. W. Wong, C. L. Cheng, W. K. Pun, S. P. Chow and J. C. Y. Leong

25–Hydroxycholecalciferol and Insulin-like Growth Factor I are Determinants of Serum Concentration of Osteocalcin in Elderly Subjects with and without Spinal Fractures 397

C. Palumbo, S. Palazzini and G. Marotti

Morphological Study of Intercellular Junctions during Osteocyte Differentiation 401

J. M. Olmos, J. A. Amado, J. A. Riancho, M. Albájar and J. González-Macías

Sex and Age Distribution of $1,25(OH)_2D_3$ Receptors in Peripheral Blood Mononuclear Cells from Normal Human Subjects 407

B. E. Kream, D. N. Petersen and L. G. Raisz

Parathyroid Hormone Blocks the Stimulatory Effect of Insulin-like Growth Factor–I on Collagen Synthesis in Cultured 21-day Fetal Rat Calvariae 411

K. S. Jensen, Lis Mosekilde and Leif Mosekilde

A Model of Vertebral Trabecular Bone Architecture and its Mechanical Properties 417

J. A. Falch and L. Sandvik

Perimenopausal Appendicular Bone Loss: A 10-year Prospective Study 425

M. M. Hämäläinen, M. Knuuttila, M. Svanberg and T. Koskinen

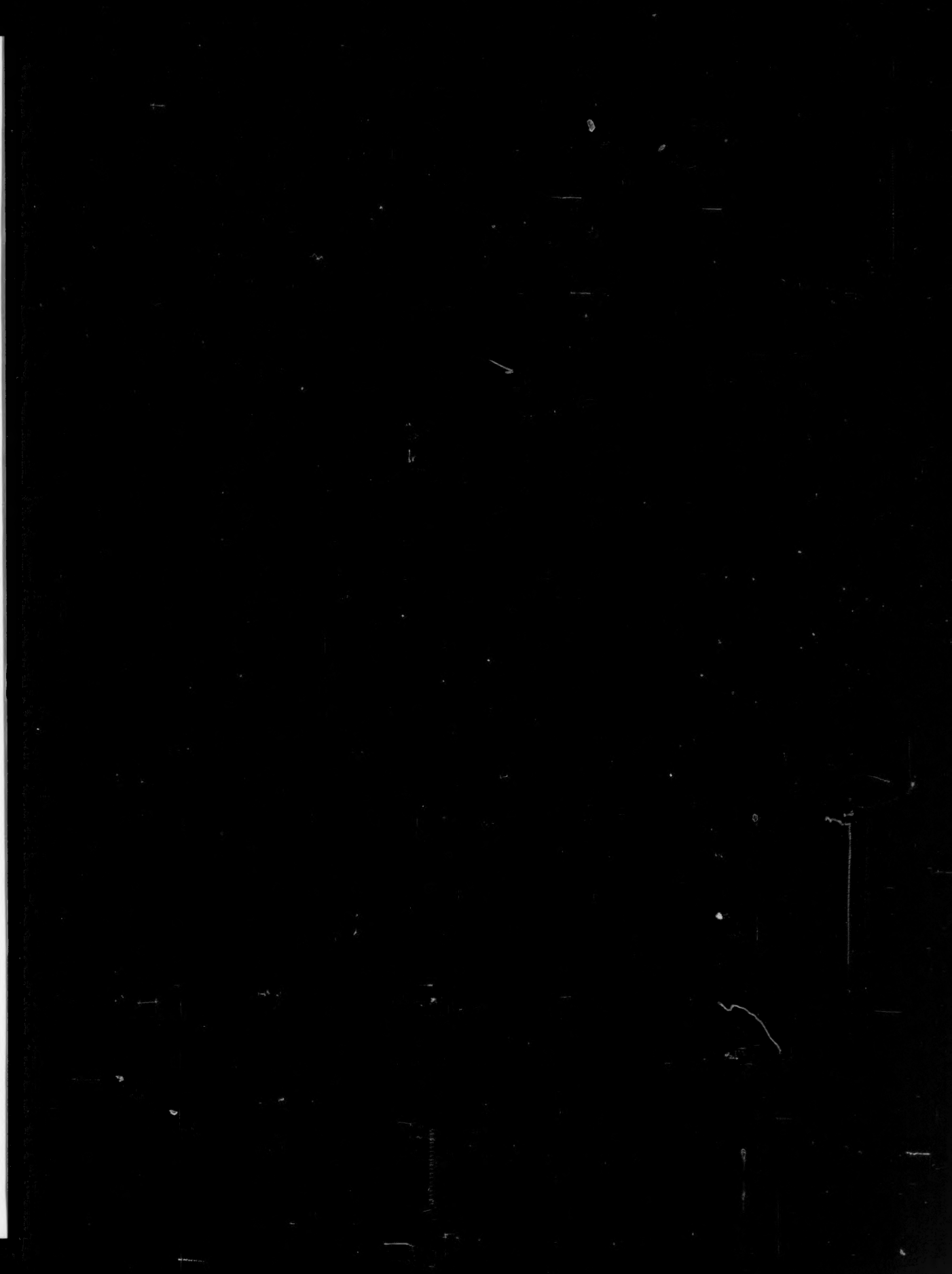
Comparison of the Effect of Gluconate, Lactose, and Xylitol on Bone Recalcification in Calcium-Deficient Rats 439

D. B. Evans, M. Thavarajah, M. R. Uskokovic and J. A. Kanis

Increased Potency of 1,25–Dihydroxyvitamin D_3 on Human Osteoblast-like Cells Following Structural Side-chain Modification 429

A. Lomri and P. J. Marie

Effects of Transforming Growth Factor Type β on Expression of Cytoskeletal Proteins in Endosteal Mouse Osteoblastic Cells 445

Erratum 453

List of Contents and Author Index, Volume 11 455